

Transitioning Los Alamos technology into the marketplace

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With technology changing faster each year, we must adapt to ensure that the advanced science and technology developed by Los Alamos National Laboratory makes it out of the Lab and into applications. In the past, the U.S. government made the big early investments in technology and the commercial marketplace followed this lead, often decades behind. Space offers good examples: The U.S. programs to get humans to the moon and to design sophisticated satellites resulted in today's inexpensive solar cells, freeze-dried food and earth imaging.

Government investments continue to be vital for fostering new scientific ideas and longrange technologies, but increasingly the development of new technology is driven by private sector investment. To stay agile in this dynamic world, Los Alamos turns to partnerships to transition technologies from the government's initial work, as illustrated recently by the Laboratory's ground-breaking <u>quantum cryptography</u> project.

Today's encryption methods require math operations that are difficult at high data rates, yet speed is paramount for protecting financial transactions or the electric grid. Our quantum cryptography technology meets this requirement and is ready to be tested in demanding commercial settings. The transition to the marketplace will allow the ideas and technology developed at Los Alamos to bring an important security benefit to U.S. industry and ultimately the consumer.

We also bring this spirit of partnership to the communities of northern New Mexico, helping accelerate innovation in the region's economy. For example, the Los Alamos National Security (LANS), LLC Venture Acceleration Fund (funded by LANS and community partners) has demonstrated a 20:1 return over eight years in assisting local companies launch new products and create jobs. The New Mexico Small Business Assistance Program (a collaboration between Los Alamos National Laboratory, Sandia National Laboratories and the State of New Mexico) has supported over 2,000 businesses and impacted 2,800 positions since 2000. Stronger partnerships are the key to encouraging and facilitating innovation both regionally and nationally.

- Duncan McBranch

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